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- (11) The duration of the operating cycle for unitized incinerating devices.
- (12) The maximum angles of pitch and roll at which the device operates in accordance with the applicable requirements of §159.53.
- (13) Whether the device is designed to operate in salt, fresh, or brackish water.
- (14) The maximum hydrostatic pressure at which a pressurized sewage retention tank meets the requirements of §159.111.
- (15) The maximum operating level of liquid retention components.
- (16) Whether the device is Type I, II, or III.
 - (17) A statement as follows:

NOTE: The EPA standards state that in freshwater lakes, freshwater reservoirs or other freshwater impoundments whose inlets or outlets are such as to prevent the ingress or egress by vessel traffic subject to this regulation, or in rivers not capable of navigation by interstate vessel traffic subject to this regulation, marine sanitation devices certified by the U.S. Coast Guard installed on all vessels shall be designed and operated to prevent the overboard discharge of sewage, treated or untreated, or of any waste derived from sewage. The EPA standards further state that this shall not be construed to prohibit the carriage of Coast Guard-certified flow-through treatment devices which have been secured so as to prevent such discharges. They also state that waters where a Coast Guard-certified marine sanitation device permitting discharge is allowed include coastal waters and estuaries, the Great Lakes and interconnected waterways, freshwater lakes and impoundments accessible through locks, and other flowing waters that are navigable interstate by vessels subject to this regulation (40 CFR 140.3).

[CGD 73-83, 40 FR 4624, Jan. 30, 1975, as amended by CGD 75-213, 41 FR 15325, Apr. 12, 1976]

§159.59 Placard.

Each device must have a placard suitable for posting on which is printed the operating instructions, safety precautions, and warnings pertinent to the device. The size of the letters printed on the placard must be one-eighth of an inch or larger.

§ 159.61 Vents.

Vents must be designed and constructed to minimize clogging by either the contents of the tank or climatic conditions such as snow or ice.

§159.63 Access to parts.

Each part of the device that is required by the manufacturer's instructions to be serviced routinely must be readily accessible in the installed position of the device recommended by the manufacturer.

§ 159.65 Chemical level indicator.

The device must be equipped with one of the following:

- (a) A means of indicating the amount in the device of any chemical that is necessary for its effective operation.
- (b) A means of indicating when chemicals must be added for the proper continued operation of the device.

§ 159.67 Electrical component ratings.

Electrical components must have current and voltage ratings equal to or greater than the maximum load they may carry.

§ 159.69 Motor ratings.

Motors must be rated to operate at 50 $^{\circ}\mathrm{C}$ ambient temperature.

§ 159.71 Electrical controls and conductors.

Electrical controls and conductors must be installed in accordance with good marine practice. Wire must be copper and must be stranded. Electrical controls and conductors must be protected from exposure to chemicals and sewage.

§159.73 Conductors.

Current carrying conductors must be electrically insulated from non-current carrying metal parts.

§159.75 Overcurrent protection.

Overcurrent protection must be provided within the unit to protect sub-components of the device if the manufacturer's recommended supply circuit overcurrent protection is not adequate for these subcomponents.

§159.79 Terminals.

Terminals must be solderless lugs with ring type or captive spade ends, must have provisions for being locked against movement from vibration, and must be marked for identification on the wiring diagram required in §159.57.

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Terminal blocks must be nonabsorbent and securely mounted. Terminal blocks must be provided with barrier insulation that prevents contact between adjacent terminals or metal surfaces.

§ 159.81 Baffles.

Baffles in sewage retention tanks, if any, must have openings to allow liquid and vapor to flow freely across the top and bottom of the tank.

$\S 159.83$ Level indicator.

Each sewage retention device must have a means of indicating when the device is more than ¾ full by volume.

§ 159.85 Sewage removal.

The device must be designed for efficient removal of nearly all of the liquid and solids in the sewage retention tank.

§ 159.87 Removal fittings.

If sewage removal fittings or adapters are provided with the device, they must be of either $1\frac{1}{2}$ or 4 nominal pipe size.

§ 159.89 Power interruption: Type I and II devices.

A discharge device must be designed so that a momentary loss of power during operation of the device does not allow a discharge that does not meet the requirements in §159.53.

[CGD 73-83, 40 FR 4624, Jan. 30, 1975, as amended by CGD 75-213, 41 FR 15326, Apr. 12, 1976]

§159.93 Independent supporting.

The device must have provisions for supporting that are independent from connecting pipes.

§159.95 Safety.

- (a) Each device must-
- (1) Be free of design defects such as rough or sharp edges that may cause bodily injuries or that would allow toxic substances to escape to the interior of the vessel;
- (2) Be vented or provided with a means to prevent an explosion or over pressurization as a result of an accumulation of gases; and
- (3) Meet all other safety requirements of the regulations applicable to

the type of vessel for which it is certified.

- (b) A chemical that is specified or provided by the manufacturer for use in the operation of a device and is defined as a hazardous material in 46 CFR Part 146 must be certified by the procedures in 46 CFR Part 147.
- (c) Current carrying components must be protected from accidental contact by personnel operating or routinely servicing the device. All current carrying components must as a minimum be of drip-proof construction or be enclosed within a drip-proof compartment.

§ 159.97 Safety: inspected vessels.

The Commanding Officer, USCG Marine Safety Center, approves the design and construction of devices to be certified for installation and operation on board inspected vessels on the basis of tests and reports of inspection under the applicable marine engineering requirements in Subchapter F of Title 46, Code of Federal Regulations, and under the applicable electrical engineering requirements in Subchapter J of Title 46 Code of Federal Regulations.

[CGD 73-83, 40 FR 4624, Jan. 30, 1975, as amended by CGD 75-213, 41 FR 15326, Apr. 12, 1976; USCG-2001-9286, 66 FR 33641, June 25, 2001]

§159.101 Testing: general.

Unless otherwise authorized by the Coast Guard, a recognized facility must perform each test described in §§ 159.103 through 159.131. The same device must be used for each test and tested in the order in which the tests are described. There must be no cracking, softening, deterioration, displacement, breakage, leakage or damage of components or materials that affects the operation or safety of the device after each test described in §§159.103 through 159.117 and §159.121, and the device must remain operable after the test described in §159.119. The device must be set up in a manner simulating installation on a vessel in accordance with the manufacturer's instructions with respect to mounting, water supply, and discharge fittings.

[CGD 73-83, 40 FR 4624, Jan. 30, 1975, as amended by CGD 75-213, 41 FR 15326, Apr. 12, 1976]